



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/708,622	03/16/2004	Wen-Kuo Lin	SISP0012USA	2621
27765	7590	05/14/2007	EXAMINER	
NORTH AMERICA INTELLECTUAL PROPERTY CORPORATION P.O. BOX 506 MERRIFIELD, VA 22116				VANCHY JR, MICHAEL J
ART UNIT		PAPER NUMBER		
		2609		
NOTIFICATION DATE		DELIVERY MODE		
05/14/2007		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

winstonhsu.uspto@gmail.com
Patent.admin.uspto.Rcv@naipo.com
mis.ap.uspto@naipo.com.tw

Office Action Summary	Application No.	Applicant(s)
	10/708,622	LIN ET AL.
Examiner	Michael Vanchy Jr.	Art Unit 2609

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on ____.

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-7 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) Claim(s) _____ is/are allowed.
6) Claim(s) 1-7 is/are rejected.
7) Claim(s) _____ is/are objected to.
8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892) ✓
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) Information Disclosure Statement(s) (PTO/SB/08) ✓
Paper No(s)/Mail Date 11/27/2006.

4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ .
5) Notice of Informal Patent Application
6) Other: ____ .

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. **Claims 1-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Acharya et al. US 6,236,433 B1.**

Re claim 1, a method for decimating (Acharya, Abstract, “generating a super-pixel which is a downsampled version of the scaling region.”) a first image data filtered by a Bayer pattern color filter array, the first image data comprising a plurality of patterns arranged in an array, each pattern comprising a first color pixel, (Acharya, col. 3, lines 62-65, “The technique described in FIG. 1 is applicable specifically to a image in its CFA (Color Filter Array) form, as derived for instance, from an image sensor or set of image sensors. A common CFA pattern is the Bayer pattern (described below and shown in FIG. 2).”) the method comprising:

providing first color pixel weighting values of the plurality of patterns of the first image data (Acharya, Fig. 3(c) and col. 7 lines 4-6, “The intensity value of a component in a scaled image super-pixel is determined by applying such a mask...”); and summing up the first color pixel weighting values (Acharya, col. 7, lines 14-15, “The mask products shown in FIG. 4(a) are summed together to obtain a single value.”) to generate a first color pixel of a second image data decimated from the first image data (Acharya,

Abstract, “generating a super-pixel which is a downsampled version of the scaling region.”).

Re claim 2, the method of claim 1 further comprising providing a plurality of first color pixel weighting factors, wherein the first color pixel weighting value is the product of the first color pixel weighting factor and the corresponding first color pixel signal of the first image data (Acharya, col. 7, lines 14-25, “*The mask products shown in FIG. 4(a) are summed together to obtain a single value. Since each pixel in a CFA ordinarily has a set intensity resolution, typically a value of 8-bits (0 to 255), the sum of the mask products must be normalized to such a value. This is achieved by simply dividing the sum of the mask products by the sum of the mask coefficients. Since there is one term with a coefficient of 4, 4 terms have a coefficient of 2 and 4 more with a coefficient of 1, the total “weight” of the mask of FIG. 4(a) (the sum of the coefficients) is 16. Thus, R.sub.X 11, the Red component of scaled image super-pixel X11 would be [R11+2*R13+R15+2*R31+4*R33+2*R35+R51+2*R53+R55]/16.*”).

Re claim 3, the method of claim 2 wherein the sum of the plurality of first color pixel weighting factors is 1 (Acharya, col.7, lines 24-25, “*Thus, R.sub.X 11, the Red component of scaled image super-pixel X11 would be [R11+2*R13+R15+2*R31+4*R33+2*R35+R51+2*R53+R55]/16.*”). The examiner takes into account that the coefficients, or weighting factors, add to the sum of 16 but by dividing by 16 the same outcome of a weighting factor of 1 occurs.

Re claim 4, the method of claim 1 wherein the first color pixel is a red pixel (Acharya, col. 3, lines 65-67, and col. 4, lines 6-9, “*A common CFA pattern is the Bayer*

pattern (described below and shown in FIG. 2) which has each pixel location in the array associated with one of three colors, Red (R), Green (G) or Blue (B). According to one embodiment of the invention, first, an initial location in the CFA is set (step 110). This location will determine the starting point for the sampling region and scaling region.”).

Re claim 5, the method of claim 1 wherein the first color pixel is a green pixel (Acharya, col. 3, lines 65-67, and col. 4, lines 6-9, “A common CFA pattern is the Bayer pattern (described below and shown in FIG. 2) which has each pixel location in the array associated with one of three colors, Red (R), Green (G) or Blue (B). According to one embodiment of the invention, first, an initial location in the CFA is set (step 110). This location will determine the starting point for the sampling region and scaling region.”).

Re claim 6, the method of claim 1 wherein the first color pixel is a blue pixel (Acharya, col. 3, lines 65-67, and col. 4, lines 6-9, “A common CFA pattern is the Bayer pattern (described below and shown in FIG. 2) which has each pixel location in the array associated with one of three colors, Red (R), Green (G) or Blue (B). According to one embodiment of the invention, first, an initial location in the CFA is set (step 110). This location will determine the starting point for the sampling region and scaling region.”).

Re claim 7, the method of claim 1 wherein each pattern comprises a red pixel, two green pixels, and a blue pixel (Acharya, col. 7, lines 1-2, “Pixels associated with Green appear twice for each Red or Blue associated pixel.”).

Examiner's Note

The referenced citations made in the rejection(s) above are intended to exemplify areas in the prior art document(s) in which the examiner believed are the most relevant to the claimed subject matter. However, it is incumbent upon the applicant to analyze the prior art document(s) in its/their entirety since other areas of the document(s) may be relied upon at a later time to substantiate examiner's rationale of record. A prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention. W.L. Gore & associates, Inc. v. Garlock, Inc., 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984). However, "the prior art's mere disclosure of more than one alternative does not constitute a teaching away from any of these alternatives because such disclosure does not criticize, discredit, or otherwise discourage the solution claimed...." In re Fulton, 391 F.3d 1195, 1201, 73 USPQ2d 1141, 1146 (Fed. Cir. 2004).

Contact

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Vanchy Jr. whose telephone number is (571) 270-1193. The examiner can normally be reached on Monday - Friday 7:30 am - 5:00 pm Alt. Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vu Le can be reached on (571) 272-7332. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Michael J. Vanchy Jr.

Examiner

AU 2609

(571) 270-1193

Michael.Vanchy@uspto.gov

VU LE
SUPERVISORY PATENT EXAMINER